ROAD SURFACE FOR BUILDING ROAD SURFACE WITH ACTIVE TRAFFIC

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Road for the movement of vehicles is a roadway with high-strength parameters that allow it to withstand heavy loads for a long period of time. The cost of road surface t is 40-60% of the total cost of the road

It is necessary to take into account all the factors influencing the long-term operation of road surfacing choosing the type of road surface.

The most common road surfacing a shield-asphalt which includes sand, stone flour and cast asphalt.

The climatic conditions have a significant impact on the condition of the road surfacing as weather destroys the asphalt surfacing.

Another type of road surfacing are road slabs related to rigid pavement.

Road slabs are able to withstand and evenly distribute existing loads, thereby minimizing the weight and mechanical impact on underground communication lines which are often under road surfacing.

Advantage of road slabs is high environmental friendliness. Unlike asphalt, coatings from slabs do not soften in the heat and do not emit volatile oil products. Clearances between the slabs prevent the accumulation of moisture and the formation of puddles being a natural drainage. The second advantage is durability. The third advantage is the high speed of installation or dismantling.

Unlike asphalt, road slabs is disassembled as easily as it is assembled which makes it possible to replace without any extra effort any of its elements, to repair the underground plumbing or cable, and then quickly restore the road surfacing.

Concrete slabs are the best road surface with active traffic. Road slabs due to its portability help to create a perfectly smooth concrete road surface. Road slabs are used for temporary roads and even airfield sites. If necessary, reinforced concrete road slabs can be used many times. This is an indicative of the apparent stability of the material to abrasion, vibration and impact of precipitation. Road slabs are estimated on building sites because they form a solid, perfectly smooth surface with a few joints.

It is especially actuals for new buildings because asphalt can be damaged during the final shrinkage processes but road slabs preserve the integrity and the evenness of the surface.

Increasing demands to requirements of urban roads lead to road slabs for road extension.

Repair of concrete slab roads is the fastest and most effective. Standard road slabs simply replaced by new ones. So a building team can repair up to 5 kilometers of the road for one day.

At the entrances to a bridge high-quality road slabs are often met. Smooth rough surface allows driving or turning off the bridge safely in any weather conditions.

Smooth slabs have a size in the plan 6000x2000 mm, height 140 mm, it are reinforced with thermally bonded reinforcement by class At-V, At-IV.

It is allowed to use reinforcement classes A-V, A-IV, according to [2].

Slabs are intended for using as a road surface its surface of roads with classes I - V under load AK NK80, NK100 according to [2]

Variants of the working reinforcement slabs reinforcing ropes K1500 with using of concrete with class C25/30 (SRP-14K) and high-grade rods reinforcement with class A800 with concrete class C25/30 or C20/25 (SRP-14A) was developed in [1 ... 3] in the regard with the changes in the standards for using reinforcement and concrete [1] and changes in standards for operating requirements (for slabs are using under load LM1, LM2, LM3, LM4 according to EN 1991-2: 2003).

These slabs have the same level of crack resistant with standard slabs and higher strength

Accepted methods of tension K1500 is mechanical, for reinforcement A800 is mechanical or electrothermal.

This slab cannot be full-strength with standard, but it can provide an equal crack resistance.

References

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